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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
097334,208	06/15/99	DAVIS J	DAVIS100

RAY G WILSON
233 ROVER BLVD
LOS ALAMOS NM 87544

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EXAMINER

SOLAK, T

ART UNIT	PAPER NUMBER
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3746

DATE MAILED: 01/17/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/334,208

Applicant(s)

Davis

Examiner

Timothy P. Solak

Group Art Unit
3746



☒ Responsive to communication(s) filed on Nov 3, 2000

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-13 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-13 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Continued Prosecution Application

1. The request filed on 11/03/2000 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09334208 is acceptable and a CPA has been established. An action on the CPA follows.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills (3,851,995), in view of Long, Jr. (4,450,943). Mills, teaches a method of pumping an oil well, comprising the steps of: connecting a continuously running engine 16 (column 3, line 29-31) to a pump assembly 14 through a clutch (column 7, lines 6-8) and determining a selected event to actuate the clutch (column 2, lines 53-60). Although, Mills teaches most of the limitations of the claim, he does not disclose a pneumatic clutch or a supply of gas. Long, Jr., teaches an air clutch 10 equipped with inflatable air bladders 64 for connecting hub 70 to clutch plate 106 in order to transmit rotary motion. Long, Jr. further teaches a method of supplying gas to inflate the bladders (column 2, lines

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3-9) in order to engage the clutch. Long, Jr. teaches the air bladders advantageously increased the life of the clutch (column 1, lines 40-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the air clutch taught by Long, Jr., in the method disclosed by Mills, to have advantageously increased the life of the clutch.

4. Claims 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mills, in view of Long, Jr. (both previously mentioned), in further view of Turner et al. (3,247,798). Mills, teaches most of the limitations of the claims, including a method for pumping an oil well depending on a selected event. Mills, however, does not teach the selected event to include a time interval or liquid level. Turner et al., disclosing a method of pumping an oil well, specifically teach a method to control the pumping cycle, based on periodic time intervals and the level within the well (column 6, line 19-23), in order to maintain an inflow of hydrocarbons from a producing formation (column 1, line 31). Turner et al., teach this method advantageously achieved maximum fluid production (column 6, lines 10-13). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the time/level method taught by Turner et al., in the method disclosed by Mills, to have advantageously achieved maximum fluid production.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills, in view of Long, Jr. (both previously mentioned), in further view of Gallaway (3,075,467). Although, Long, Jr. and Mills teach most of the limitations of the claim, including a method of pumping an oil well

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using a continuously running motor connected via a clutch equipped with pneumatically inflated bladders to a pumping assembly, they do not disclose using a supply of gas from the well to activate the clutch. Gallaway, disclosing a means of pumping liquids from a gas well, specifically teaches a method of using pressurized gas from the well to activate the pump (column 3, line 20). Gallaway, teaches this method was advantageously cost effective (column 1, line 25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the method taught by Gallaway, in the method disclosed by Mills, to have advantageously lowered the cost incurred by the method.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills, in view of Long, Jr. and Gallaway, in further view of Turner et al. (all previously mentioned). Although, Boone, Long, Jr. and Gallaway, teach most of the limitations of the claim, including a method of pumping an oil well using a pneumatic clutch activated by a selected event, they do not disclose the event to include a time interval or a liquid level. Turner et al., disclosing a method of pumping an oil well, specifically teach a method to control the pumping cycle based on periodic time intervals and the level within the well (column 6, line 19-23). Turner et al., teach this method advantageously achieved maximum fluid production (column 6, lines 10-13). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the time/level method taught by Turner et al., in the method disclosed by Mills, to have advantageously achieved maximum fluid production.

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7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills, in view of Long, Jr. and Turner et al., in further view of Gallaway (all previously mentioned). Although Mills, Long, Jr. and Turner et al., teach most of the limitations of the claim, including a method of pumping an oil well including: a continuously running motor connected to a pumping assembly via a clutch equipped with pneumatically inflated bladders, they do not disclose using a supply of gas from the well to activate the clutch. Gallaway, disclosing a means of pumping liquids from a gas well, specifically teaches a method of using pressurized gas from the well to activate the pump (column 3, line 20). Gallaway, teaches this method was advantageously cost effective (column 1, line 25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the method taught by Gallaway, in the method disclosed by Mills, to have advantageously lowered the cost incurred by the method.

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills, in view of Long, Jr. (both previously mentioned), in further view of Kuehn, III et al. (4,392,782). Mills, teaches most of the limitations of the claim, including a method of pumping an oil well by using a selected event to activate a pump in order to maintain an inflow of hydrocarbons from a producing formation while reducing the pump assembly's duty cycle (column 2, lines 36-39). Mills, however, does not disclose the selected event to be determined from directly monitoring the liquid level. Kuehn, III et al., disclosing a liquid level controller for oil wells, specifically teach a method consisting of: directly monitoring the liquid level inside a well (column 2, line 66) and actuating a pump to maintain the level between selected elevations (column 9, line 16). Kuehn,

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III et al., teach this method advantageously increased the efficiency and convenience of maintaining a liquid level in the well (column 9, line 16). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the method taught by Kuehn, III et al., in the method disclosed by Mills, to have advantageously increased the method's efficiency.

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills, in view of Long, Jr. and Kuehn, III et al., in further view of Gallaway (all previously mentioned). Mills and Long, Jr. teach most of the limitations of the claim, including a method of pumping an oil well including: a continuously running motor connected to a pumping assembly via a clutch equipped with pneumatically inflated bladders. Mills and Long, Jr., however, do not disclose using a supply of gas from the well. Gallaway, disclosing a means of pumping liquids from a gas well, specifically teaches a method of using pressurized gas from the well to activate the pump (column 3, line 20). Gallaway, teaches this method was advantageously cost effective (column 1, line 25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the method taught by Gallaway, in the method disclosed by Mills, to have advantageously lowered the cost incurred by the method.

10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills, in view of Long, Jr. (both previously mentioned). Mills, teaches a pumping assembly for maintaining hydrocarbon production from a well, comprising: an engine 16, a pump assembly 14, a clutch (column 7, lines 6-8), and a control unit 34 for actuating the clutch. Although, Mills teaches most

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of the limitations of the claim, he does not disclose a pneumatic clutch. Long, Jr., teaches an air clutch 10, equipped with inflatable air bladders 64 connecting hub 70 to clutch plate 106 for transmitting rotary motion. Long, Jr. teaches the air bladders advantageously increased the life of the clutch (column 1, lines 40-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the air clutch taught by Long, Jr., in the pumping assembly disclosed by Mills, to have advantageously increased the life of the clutch.

11. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills, in view of Long, Jr., in further view of Gallaway (all previously mentioned). Although, Mills and Long, Jr., teach most of the limitations of the claim, including a control unit to activate a pneumatic clutch with air bladders, they do not disclose using gas from the well to fill the air bladders. Gallaway, disclosing a means of pumping liquids from a gas well, specifically teaches using pressurized gas from the well to activate the pump (column 3, line 20). Gallaway, teaches using gas from the well was advantageously cost effective (column 1, line 25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used gas from the well as taught by Gallaway, in the pumping assembly disclosed by Mills, to have advantageously lowered the cost of operation.

12. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills, in view of Long, Jr. and Gallaway (all previously mentioned), in further view of Dye (2,634,682). Although, Mills, teaches the activation of the pumping cycle depended on a selected event, he does not disclose the use of a timer. Dye, disclosing an oil well pumping assembly, specifically teaches a

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control unit comprised of a timer 4 for activating the pumping cycle. Dye, teaches that the timer advantageously allowed unattended operation of the pump (column 1, lines 23-28). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the timer taught by Dye, in the pump assembly disclosed by Mills, to have advantageously allowed unattended operation of the pump.

13. Claim 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mills, in view of Long, Jr., in further view of Kuehn (all previously mentioned). Although, Mills teaches most of the limitations of the claims, including intermittent operation of a pump assembly dependent on well conditions, he does not disclose directly monitoring the liquid level. Kuehn, III et al., disclosing a liquid level controller for oil wells, specifically teach the use of thermistors 68 and 70 to monitor the level of liquid inside the well (column 2, line 66). Kuehn III, et al., further teach, the liquid level controller 10 receives signals from the sensors 68 and 70 and cycles the pump on and off to maintain the level below a maximum height. Kuehn, III et al., teach the thermistors advantageously increased the efficiency and convenience of maintaining a liquid level (column 9, line 16). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the thermistors taught by Kuehn, III et al., in the pump assembly disclosed by Mills, to have advantageously increased the units efficiency.

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Response to Arguments

14. Applicant's arguments filed 11/03/2000 have been fully considered but they are not persuasive.
15. In response to Applicant's inquiry on underlining numbers, bracketing or underlining are commonly used to indicate amendments or changes in the claims and are normally not intended to be printed in the published patent. Underlining of the reference numbers in the disclosure could lead to confusion and mistake during the issue and printing processes. No correction is required.
16. Applicant's argument, Boon et al. is not an appropriate reference, has been considered but is moot in view of the new ground(s) of rejection.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- ◆ Sommer (4,493,613) teaches an oil well pump driven through a clutch.
 - ◆ Langlois et al. (4,390,321) teach a continuously running oil well pump with a fluid drive.
18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy P. Solak whose telephone number is (703) 308-6197. The examiner can normally be reached on Monday through Thursday from 7:30 am to 5:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy S. Thorpe, can be reached on (703) 308-0102. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3588.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.


CHARLES G. FREAY
PRIMARY EXAMINER


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January 11, 2001